



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,714	08/25/2003	Thomas J. Kelly	08350.3304-05	9838
58982      7590      11/14/2008 CATERPILLAR/FINNEGAN, HENDERSON, L.L.P. 901 New York Avenue, NW WASHINGTON, DC 20001-4413				
EXAMINER				
GYORFI, THOMAS A				
ART UNIT		PAPER NUMBER		
2435				
MAIL DATE		DELIVERY MODE		
11/14/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/646,714

**Applicant(s)**

KELLY ET AL.

**Examiner**

Thomas Gyorfi

**Art Unit**

2435

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/83)  
Paper No(s)/Mail Date 8/27/08, 8/29/05, and 4/2/04
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date 8/20/08
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-26 remain for examination. The correspondence filed 8/27/08 amended claims 1, 12, & 23; and added claims 24-26.

***Information Disclosure Statement***

2. The Information Disclosure Statement (IDS) filed 8/27/08 has been considered by the Examiner. Additionally, in large part due to the interview between Examiner and Applicant's representatives on 8/20/08, the IDS forms filed on 4/2/04 and 8/29/05 have now been fully considered by the Examiner.

***Response to Arguments***

3. Applicant's arguments, see the amendment filed 8/27/08 as well as the interview summary from 8/20/08, with respect to the amended claims and their inclusion of the application-specific term "work machine" have been fully considered and are persuasive. The previous rejections of claims 1-23 has been withdrawn. However, upon further consideration, new grounds of rejection are presented below, in part based upon the newly considered Tokunaga reference.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-7, 10-18, and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokunaga et al. (U.S. Patent Application Publication 2003/0117298) in view of Wesinger et al. (U.S. Patent 6,052,788).

Regarding claim 1:

Tokunaga discloses a system for managing communications comprising: a first off-board system connected to a first off-board data link, wherein the off-board module is remotely located from the first work machine (the external PC of Figures 7 & 8; and paragraph 0102); and a gateway embedded in the first machine including: a communication application that uses a translation table stored in the gateway for converting information from a first communication protocol format to a second communication protocol format (paragraphs 0062 and 0127); and an application that is configured to perform, when executed by a processor, a process that controls access to proprietary information associated with the first work machine, wherein the process: determines whether a message received from the first off-board system is authorized based on a profile associated with the first off-board system (paragraphs 0156, 0159, and 0163), determines whether a message received from the first off-board module includes a parameter identifier corresponding to one of a number of parameter identifiers corresponding to one of a number of parameter identifiers included in the translation table, the parameter identifiers specifying operational parameters of a mechanical system on-board the first work machine (paragraph 0101-0106); and denies access to the proprietary information based on at least one of (i) a determination that

the parameter identifier in the data message does not correspond to one of the number of parameter identifiers in the translation table and (ii) the profile associated with the off-board system (Ibid).

Examiner takes Official Notice that, given Tokunaga's omission of any explicit limits as to what type of vehicles may possess an embodiment of that invention, could be applied to such vehicles as industrial trucks which would qualify as "work machines" under the broadest reasonable interpretation of the application-specific term, and which also have need of such functionality (pursuant to MPEP 2144.03, US Patent Application 2003/074118 to Rogg discloses similar functionality to Tokunaga in a work machine).

Although the filtering system implemented by the Tokunaga gateway is similar to that of a well-known firewall system, it is not technically referred to as a firewall. Examiner submits that any alleged discrepancies between the filtering system of Tokunaga and the claimed invention would be remedied by incorporating the techniques of a conventional firewall such as that disclosed by Wesinger (Figure 1; col. 8, lines 15-20; col. 7, lines 45-53; col. 8, lines 35-55; col. 9, lines 20-67; col. 16, lines 13-37). The claim is thus obvious because incorporating an actual firewall into the system disclosed Tokunaga was part of the ordinary capabilities of one of ordinary skill in the art, in view of the teaching of the technique for improvement in related situations. It is particularly observed that firewalls are well suited for limiting the flow of unwanted network traffic, which Tokunaga explicitly discloses as a desirable objective (Tokunaga: paragraph 0063; Wesinger: col. 3, lines 55-67; col. 10, lines 60-65).

Regarding claims 12 and 23:

Tokunaga discloses a method (and computer program for implementing same) for managing communications comprising: receiving a request generated by a first off-board system and transmitted on a first off-board data link (paragraphs 0101-0106; see also the external PC of Figs. 7-8); and invoking an application that performs a process including the steps of: identifying a destination device associated with the request (Ibid), converting the request from a first communication protocol format to a second communication protocol format compatible with the destination device (paragraphs 0062 and 0127); determining whether the request is authorized based on a profile associated with the first off-board system (paragraphs 0147-0168); determining whether the request includes a parameter identifier that matches a parameter identifier included in a memory location maintained by the gateway, the parameter identifier specifying an operational parameter of a mechanical system on-board the first work machine (Ibid), and denying or granting access to proprietary information based on the two determining steps (Ibid).

Examiner takes Official Notice that, given Tokunaga's omission of any explicit limits as to what type of vehicles may possess an embodiment of that invention, could be applied to such vehicles as industrial trucks which would qualify as "work machines" under the broadest reasonable interpretation of the application-specific term, and which also have need of such functionality (pursuant to MPEP 2144.03, US Patent Application 2003/074118 to Rogg discloses similar functionality to Tokunaga in a work machine).

Although the filtering system implemented by the Tokunaga gateway is similar to that of a well-known firewall system, it is not technically referred to as a firewall. Examiner submits that any alleged discrepancies between the filtering system of Tokunaga and the claimed invention would be remedied by incorporating the techniques of a conventional firewall such as that disclosed by Wesinger (Figure 1; col. 8, lines 15-20; col. 7, lines 45-53; col. 8, lines 35-55; col. 9, lines 20-67; col. 16, lines 13-37). The claim is thus obvious because incorporating an actual firewall into the system disclosed Tokunaga was part of the ordinary capabilities of one of ordinary skill in the art, in view of the teaching of the technique for improvement in related situations. It is particularly observed that firewalls are well suited for limiting the flow of unwanted network traffic, which Tokunaga explicitly discloses as a desirable objective (Tokunaga: paragraph 0063; Wesinger: col. 3, lines 55-67; col. 10, lines 60-65).

Regarding claim 2:

Wesinger further discloses wherein the firewall process denies or grants access to the proprietary information based on a profile associated with a user operating the first off-board system (col. 16, lines 13-25).

Regarding claims 3 and 13:

Wesinger further discloses wherein the profile is associated with a user of the first off-board system and defines a type of access to a selected portion of the proprietary information (Ibid).

Regarding claims 4 and 14:

Wesinger further discloses wherein the proprietary information includes a parameter identifier data value (col. 15, lines 1-13).

Regarding claims 5 and 15:

Wesinger further discloses wherein the firewall process allows the first off-board system to access the proprietary information to access the proprietary information when the parameter identifier in the message matches at least one parameter identifier included in the translation table (col. 15, lines 1-13).

Regarding claims 6 and 16:

Wesinger further discloses wherein the gateway executes the communication application to convert the request to a different communication protocol format when the firewall process allows the off-board system to access the proprietary information (col. 11, lines 15-25).

Regarding claims 7 and 18:

Wesinger further discloses wherein the firewall process denies access to an on-board module based on parameter information included in a second message (col. 10, lines 51-56).



Regarding claims 10 and 21:

Wesinger further discloses wherein the firewall application performs a second firewall process that controls access to the proprietary information based on a timing profile associated with the type of request (col. 15, lines 10-15).

Regarding claims 11 and 22:

Wesinger further discloses wherein the request is a batch request including multiple sub-requests associated with the proprietary information based on a determination that parameter identifiers associated with a respective portion of the sub-requests do not match any of the parameter identifiers included in the translation table (col. 14, lines 23-30).

Regarding claim 17:

Wesinger further discloses wherein the memory location is included in a translation table used by the communication application to convert parameter data values to different formats (col. 7, lines 45-53).

Regarding claims 24-26:

Tokunaga further discloses wherein the mechanical system includes an engine system, a fuel system, or an exhaust system (paragraphs 0074 & 0080-0081).

6. Claims 8, 9, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokunaga in view of as applied to claims 1 and 16 above, and further in view of Bade et al. (U.S. Patent 6,778,837).

Regarding claims 8 and 19:

Neither Tokunaga nor Wesinger explicitly disclose wherein the first machine moves between, or within, an environment and the firewall controls access to proprietary information located in a remote location based on the position of the first machine. However, Bade discloses this limitation (col. 2, lines 38-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to permit or deny access to [mobile] devices based on location as disclosed by Bade. The motivation for doing so would be to prevent unauthorized users from accessing proprietary information in the event the device was stolen or misplaced (Ibid, and col. 2, lines 1-10).

Regarding claims 9 and 20:

Wesinger and Bade further disclose wherein the gateway receives the message from a second gateway included in a second machine that has moved into the communication range of the first machine (Wesinger: Figure 1, and col. 7, lines 12-35; Bade: col. 3, lines 35-45).

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Gyorfi whose telephone number is (571)272-3849. The examiner can normally be reached on 8:30am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAG  
11/10/08  
/Kimyen Vu/  
Supervisory Patent Examiner, Art Unit 2435